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Railway applications - Fire protection on railway vehicles - Part 3: Fire resistance requirements for fire barriers

Applications ferroviaires - Protection contre les incendies dans les véhicules ferroviaires - Partie 3: Exigences de résistance au feu des barrières au feu

Bahnanwendungen - Brandschutz in Schienenfahrzeugen - Teil 3: Feuerwiderstand von Feuerschutzabschlüssen

This Technical Specification (CEN/TS) was approved by CEN on 8 June 2008 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN/CENELEC will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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COIIL	CITES	Page
	ord	
Introdu	uction	
1	Scope	
2	Normative references	4
3	Terms and definitions	5
4	Terminology	7
5	Application of fire barriers	7
6.1 6.2 6.3 6.4 6.4.1 6.4.2 6.5 6.5.1 6.5.2 6.5.3	Classification, requirements and test procedures Classification of fire barriers Arc barrier Type A Arc barrier Type B Requirements General Figures explaining the Table 1 Standard fire resistance tests General Doors Non standard fire resistance tests	8 8 12 16 16
6.5.4 -	Conventional classified products Evaluation of conformity	
<i>/</i>		
A.1 A.2 A.3 A.4 A.5 A.6 A.7 A.8 A.9	A (normative) Requirements for mounting and fixing of test specimens General Terms and definitions Product parameters and end-use application parameters Restraint and boundary conditions Size of test specimen Number of test specimens Construction of test specimens and verification Installation of test specimen Conditioning of test specimen Joint construction	18 18 19 19 20 20
Annex	ZA (informative) Relationship between this Technical Specification and the Essential Requirements of EU Directive 96/48/EC, as amended by 2004/50/EC	
Bibliog	graphy	22

Foreword

This document (CEN/TS 45545-3:2009) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

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This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directive(s), see informative Annex ZA, which is an integral part of this document.

This series of Technical Specifications Railway applications — Fire protection on railway vehicles consists of:

- Part 1: General;
- Part 2: Requirements for fire behaviour of materials and components;
- Part 3: Fire resistance requirements for fire barriers;
- Part 4: Fire safety requirements for railway rolling stock design;
- Part 5: Fire safety requirements for electrical equipment including that of trolley buses, track guided buses and magnetic levitation vehicles;
- Part 6: Fire control and management systems;
- Part 7: Fire safety requirements for flammable liquid and flammable gas installations.

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30

Introduction

This part is based on existing fire safety regulations for railway vehicles from the International Union of Railways (UIC) and different European countries.

In using the operation and design categories defined in CEN/TS 45545-1, the requirements laid down in this part take into account the current operating conditions for European public rail transport.

1 Scope

This part specifies the fire resistance requirements and testing methods for fire barriers for railway vehicles.

The objective of the measures and requirements, specified in this part, is to protect passengers and staff in railway vehicles in the event of a developing fire on board.

It is not within the scope of this part to describe measures that ensure the preservation of the vehicles in the event of a fire.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1363-1:1999, Fire resistance tests — Part 1: General requirements

EN 1363-2:1999, Fire resistance tests — Part 2: Alternative and additional procedures

EN 1364-1, Fire resistance tests for non-loadbearing elements — Part 1: Walls

EN 1365-2, Fire resistance tests for loadbearing elements — Part 2: Floors and roofs

EN 1634-1, Fire resistance and smoke control tests for door, shutter and openable window assemblies and elements of building hardware - Part 1: Fire resistance tests for doors, shutters and openable windows

EN 13501-2, Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services

CEN/TS 45545-5, Railway applications — Fire protection on railway vehicles — Part 5: Fire safety requirements for electrical equipment including that of trolley buses, track guided buses and magnetic levitation vehicles

EN ISO 1182, Reaction to fire tests for building products — Non-combustibility test (ISO 1182:2002)

EN ISO 1716, Reaction to fire tests for building products — Determination of the heat of combustion (ISO 1716:2002)

EN ISO 13943:2000, Fire safety — Vocabulary (ISO 13943:2000)

ISO 834-1, Fire-resistance tests — Elements of building construction — Part 1: General requirements

ISO 8421-1:1987, Fire protection — Vocabulary — Part 1: General terms and phenomena of fire